November 2006 Volume 27, Number 2

SASKATCHEWAN DISEASE CONTROL LABORATORY NEWSLETTER

(Formerly The Provincial Laboratory), 3211 Albert Street, Regina, SK S4S 5W6 (306) 787-3131

NEWS FROM THE SASKATCHEWAN DISEASE CONTROL LABORATORY

New Name

In our last Newsletter I informed you of the planning underway for our new facility and a new laboratory information management system (LIMS). I am pleased to advise you of the significant progress on both these projects.

On October 19, 2006 Hon. Len Taylor, Minister of Health, hosted a ground-breaking ceremony on the site of the new Laboratory in Research Park, on the campus of The University of Regina. On that occasion he also announced the change of the name of The Provincial Laboratory to the **Saskatchewan Disease Control Laboratory (SDCL)**. This new name better reflects the role of the laboratory in the provision of health services to the people of the province and its role along with other public health laboratories across Canada in disease surveillance. The final design documents for the new facility are nearing completion and construction tenders will be solicited in the new year.

With regard to the LIMS replacement project, Labware has been selected as our commercial vendor; the implementation team has been organized and the actual work has started. It is expected that our environmental services area will be online in April 2007 and all clinical services online in the last quarter of 2007. In addition to the internal benefits derived from this new information system, we will be providing a more timely and user-friendly service to our clients and improved surveillance capabilities.

In addition to the above, the SDCL continues to review its policies and practices in the context of the Health Information Protection Act (HIPA). In order to ensure full compliance with that legislation, changes are being implemented on how some test results are released. Those changes are described later in this Newsletter.

Finally, I would like to take this opportunity on behalf of all of the staff at the SDCL to wish you the compliments of the upcoming festive season and the best of the New Year. We look forward to working with you for the health of our residents and communities.

Bob Firnesz, Executive Director

Contents

News From the Lab	1
New LIMS	1
Requests from SMC	2
Temperature Sensitive Specimens	2
SDCL Hours for the Festive Season	2
HIPA (The Health Protection Act)	3
Immunoserology Update	3
Bacteriology Update	4
Norovirus	5
Outbreaks Protocol	6
Compendium Updates	6
Contacts/Emergency Numbers	7

Attachments

- 2005/06 Human Viral Infections
- Compendium Updates
- Insert - Syphilis Information Sheet

About the New Laboratory Information Management System (LIMS)

The LIMS replacement project has commenced at the Saskatchewan Disease Control Laboratory (SDCL). There will be two implementation dates. In April 2007 the Environmental Laboratory will be up. The reports will be similar, but will have more information in comment fields. The Clinical side of the LIMS will be implemented in the fall of 2007.

You will soon be seeing some changes in the requisitions involving infectious disease markers. New requisitions for infectious disease markers will have a dedicated area (box) for an outbreak number. At present only a few of the Health Regions routinely assign outbreak numbers. When the new LIMS system is implemented in 2007 this will become a routine feature of tracking outbreaks. The new software will allow timely communication of both positive and negative results of specimens from an outbreak when an outbreak number has been assigned.

When using outbreak numbers, it is important to remember to assign the number to all specimens from the outbreak. **Effective immediately, we are asking clients to include the name of the institution to facilitate follow up (especially when there is no outbreak number on the requisition).**

In summary, the new LIMS will facilitate the follow up of outbreaks in the province, as well as improve turn-around-time on many tests. Public Health will routinely receive positive and negative results.

ISSN 1910-9903

REQUEST FROM SPECIMEN MANAGEMENT CENTRE

Request From Specimen Management Centre:

- Attention auto-fax clients: As per autofax cover sheet, please call after 11:00 a.m. (same day) if you have not received all pages of your fax.
- Please notify us, as soon as possible, by fax ((306) 787-9122) or mail of your change of address.
- Please do not use a locum's name when filling out a requisition in the area for physician but rather the physician's name for whom the locum is filling in and add the comment "Attention - *Locum's Name*".
- When ordering Fungal Serology, please specify which of the five tests (Histoplasmosis, Blastomycosis, Coccidioidomycosis, Aspergillosis and/or Farmer's Lung) are required.
- Please submit an individual requisition/packing slip for each separate bacteriology specimen, i.e., for specimens from multiple sites or stools collected on different days, use a separate requisition/packing slip for each specimen.
- Please do not wind identification labels around specimen tubes, rather apply them vertically.
- Please keep all samples on the same patient consecutive in the tote foam inserts.
- Thank you for separating Canadian Blood Services (CBS) specimens into the appropriate cylinders. Please secure the requisition around the CBS cylinder with a rubber band to prevent separation during the transfer to CBS.

TEMPERATURE SENSITIVE SPECIMENS

Temperature Sensitive Specimens:

The arrival of winter brings with it the risk of specimens freezing in transit to SDCL. For temperature sensitive specimens that are received frozen in transit, SDCL cannot guarantee the accuracy of the results. If specimens are not salvageable, clients will be contacted and asked to resubmit specimens.

SDCL HOURS FOR THE FESTIVE SEASON

SMC hours of operation over Christmas:

December 25/06 - Closed
December 26/06 - One person for inquiries from 8:00 a.m. - 4:00 p.m. Call back available (see Page 7 for cell numbers)
January 01/07 - Closed

Saturdays December 23/06 and December 30/06 will be operating like a normal Saturday with reduced staff from 7:15 a.m. - 4:00 p.m.

Reference Desk Shipments:

SDCL's last shipment to our reference labs will be December 21, 2006 and will resume shipping on January 2, 2007. Referral shipments to Saskatoon will be shipped as usual during this time.

HIPA

HIPA

The Health Information Protection Act (HIPA) came into force in 2003. HIPA applies to personal health information, which is defined as information about an individual's physical or mental health and/or information gathered in the course of providing a health service. The Act names as trustees those individuals and corporations (including Saskatchewan Health), who are part of Saskatchewan's health system and have custody and control of personal health information. As a trustee (of personal health information), SDCL must follow the use and disclosure sections prescribed in the Act. As a trustee, SDCL will limit the disclosure of results to those individuals listed on the original requisition or packing slip received from the client. Our procedures do provide for the release of information within a "circle of care", which SDCL has defined to include Public Health, Emergency Department, the ward on which a patient is hospitalized, Occupational and Employee Health, Transplant Clinic, Chronic Renal Insufficiency units (CRI), the Cancer Clinic, Infection Control, HIV Clinic, TB Clinic, and Saskatchewan Poison Centre.

Over the next months, you may notice when requesting lab results, that you receive a request for signed release of patient information forms in instances deemed outside "the circle of care". The reality is that maintaining the privacy of medical information is so important, that strict rules are necessary to limit any possibility for an inappropriate breach.

IMMUNOSEROLOGY UPDATE

"It will no longer be necessary to request HCV antibody testing in addition to a serology "Prenatal Screen Panel"."

HCV antibody has been added to the Prenatal Serology Screen

The Prenatal Screen Panel will now be composed of Rubella IgG, Syphilis, HBsAg (Hepatitis B surface antigen), HIV antibody and HCV antibody. HIV will continue to have an opt out alternative associated with the prenatal panel, should the patient or physician not want HIV testing performed or wish to have a non-nominal patient identity. It will no longer be necessary to request HCV antibody testing in addition to a serology "Prenatal Screen Panel". The SDCL requisitions will reflect this change with the next print of the Syphilis/Rubella/Prenatal Requisition (Health 13-2 11/02).

Hepatitis B core specific IgM

Hepatitis B core specific IgM testing will only be performed on samples from patients positive for the first time for Hepatitis B surface Antigen (HBsAg), or when requisitions indicate a recent exposure (within the past 6 months) to a known HBV-positive patient. First time HBV patients with a core total antibody positive response will have core specific IgM testing added.

Patients who are HBsAg negative and are considered possibly to have had past exposure to HBV, as indicated on the requisition, will be tested with the HBc total antibody assay. A positive core total antibody test is indicative of a naturally occurring infection, as there are no core components in HBV vaccine.

BACTERIOLOGY UPDATE

"C. difficile - presence of epidemic strain in Saskatchewan since at least 2000."

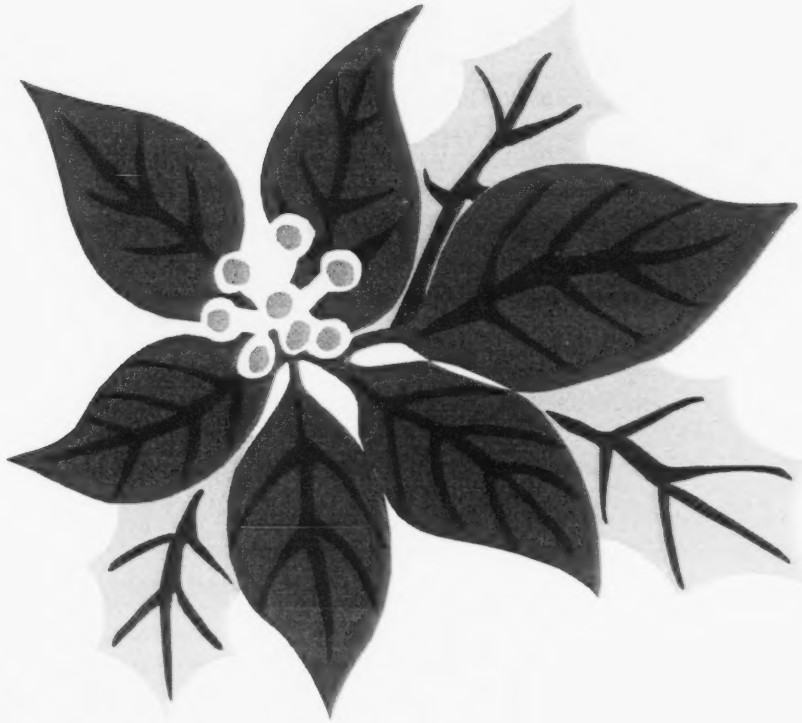
Clostridium difficile

Clostridium difficile has been in the news recently as a result of increased mortality due to a single strain that is widely spread in Europe and North America. Surveillance by the SDCL has demonstrated the presence of the epidemic strain in Saskatchewan since at least 2000, and recent federal surveillance confirmed that this strain is still present and caused sporadic cases of antibiotic-associated diarrhea in 2005.

The SDCL tests stools for the presence of *C. difficile* toxins A and B. Stools submitted for testing should be unformed (take the shape of the container) and must be submitted in plain sterile containers, without transport medium. Specimens should be refrigerated after collection (not frozen). Requisition forms should indicate antibiotics administered in the three months prior to onset of symptoms. **Repeated testing after a positive result is unnecessary.**

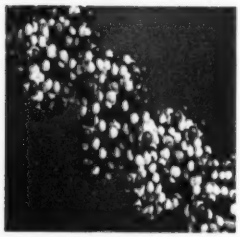
C. difficile is part of the normal flora of infants. Infants lack mucosal receptors for *C. difficile* toxins, so they may have high titers of toxin(s) without symptoms. Testing of stools from infants aged six months or younger has little clinical value.

Culture for *C. difficile* is not routinely performed, but is available with the prior approval of either Dr. Horsman (787-8316) or Dr. Levett (787-3135).



NOROVIRUS

"The most common cause of gastroenteritis is norovirus."



Norovirus

The most common cause of gastroenteritis is norovirus (formerly called Norwalk viruses or caliciviruses). This virus is transmitted via the fecal-oral route, usually in contaminated food or water, via direct person-to-person spread or via fomites. The infectious dose is very low and coupled with the excretion of large numbers of virus particles in both feces and vomitus; the potential for large outbreaks with rapid nosocomial spread is very real. Noroviruses are most frequently encountered in winter months; indeed these viruses were the cause of "winter vomiting disease". In 2006, norovirus activity has continued throughout the year and with the onset of cooler weather outbreaks are now occurring with greater frequency throughout the province.

In order to provide an efficient and timely service, please restrict sampling in institutional outbreaks to the first 5-6 cases of diarrhoea. In large institutions, if the outbreak spreads to further wings or floors, each should be investigated with another 5 or 6 specimens. Once an etiological agent (such as a norovirus) has been identified, there is no value in continuing to send specimens. This only serves to increase turn around time as the laboratory struggles to deal with increased numbers of specimens.

For institutional outbreaks there are several guidelines for declaring an outbreak over. Typically, an outbreak is declared over on the 5th day after the onset of symptoms in the final case. In individual patients or staff who have had norovirus infection, restrictions can be lifted 48 hours after the cessation of symptoms. **No further laboratory tests are required.** The most important factors in preventing and controlling norovirus outbreaks are good hygienic practices, most notably hand-washing.

The SDCL has implemented the following policies in response to the large increase in norovirus activity:

1. After norovirus has been identified in two or more stools from an outbreak, no further specimens will be tested.
2. Formed stools will not be tested.
3. The use of outbreak numbers will facilitate the rapid identification of norovirus in institutional outbreaks. Testing of sporadic cases from the community is discouraged.

THE SASKATCHEWAN DISEASE CONTROL LABORATORY WORK-UP OF OUTBREAKS PROTOCOL

"The laboratory phones all positive results from outbreak specimens."

1.0 Accessing Information from the Saskatchewan Disease Control Laboratory

1.1 Inquiries with respect to: specimen(s) arrival, notification of result, and/or requesting a faxed copy should be addressed to the Specimen Management Centre (SMC) at 787-0135.

1.2 Technical information, such as how to collect the specimen, can be obtained either from the compendium, or the SMC will forward calls to the laboratory.

1.3 **The laboratory phones all positive results from outbreak specimens.** It is not necessary to phone the lab for results, providing the requisition has been properly labelled. All results will go to the person designated on the requisition.

1.4 Public Health receives copies of all reportable communicable diseases, both positive and negative.

2.0 Identifying / Labelling Specimens

2.1 Identify the specimen as an outbreak specimen on the requisition.

2.1.1 If a Health Region uses outbreak numbers, place it in the designated spot on the requisition.

2.2 If the MHO is not specified then the result is faxed to the MHO of the Health Region in which the patient is resident, based on patient's address on the requisition or in the Person Registry System (PRS).

3.0 Outbreak Work-up:

3.1 An outbreak in an institution (whether respiratory or diarrhoeal) requires only 5 or 6 specimens, from patients within 48-72 hours after onset of symptoms. After this time, the concentration of viral particles may drop below detection limits. Once the diagnosis is established, there is **no** need for further samples for analysis. If additional testing is believed to be necessary, please review the rationale with either Dr. Paul Levett, (787-3135) or Dr. Greg Horsman, (787-8316).

3.2 The virology section communicates results of all positive outbreak specimens immediately upon initial evaluation to both: (i) the institution, and (ii) the MHO office, and/or Infection Control Nurse or Public Health Nurse.

COMPENDIUM UPDATES

Attached are three pages to be replaced in your copy of the "*Provincial Laboratory Compendium of Tests*". The pages are: **Chemistry** - page C 2; **Referrals** - page R 27.

CONTACTS NUMBERS

Which Phone Number?

REMEMBER CALL 787-3131 for information from the SDCL

Information from the Saskatchewan Disease Control Laboratory (SDCL)
(Formerly The Provincial Laboratory). 787-3131

Hours of Operation:

8:00 a.m. to 5:00 p.m. Mon. to Fri.
7:30 a.m. to 4:00 p.m. Saturday
Evening & Weekend call back, see #6 for cell numbers.

Press 1: Medical Results/General Inquiries

Identify who you are, institution and whether you are calling for:
a) lab results, in "Circle of Care" can be provided verbally;
b) specimen receipt and/or status;
c) STAT testing, call will be transferred to the appropriate section;
d) requests for technical information, call will be transferred to appropriate section.

Press 2: Referral Desk

For information on tests referred out-of-province.

Press 3: Maternal Serum Screening

For results

Press 4: Water Samples

For results on water samples submitted.

Press 5: Shipping and Supplies

For example, requests for transport media such as SAF for parasitology specimens, Carey Blair or viral transport media for specimens submitted to the Saskatchewan Disease Control Laboratory.

Press 6: Emergency After Hours Service (Evenings & Weekends Only)

TOXICOLOGY/CHEMISTRY	536-4653	
NEEDLE STICK EXPOSURE/ORGAN DONORS	537-0639	
MOLECULAR DIAGNOSTICS - ORGAN DONORS	537-9416	
MEDICAL DIRECTOR	536-7658	Dr. G. Horsman
ASSISTANT CLINICAL DIRECTOR	537-4285	Dr. P. Levett
CHEMISTRY, SCREENING & REFERENCE TESTING	533-6532	Dr. D. Lehotay
ENVIRONMENTAL SERVICES	535-7388	Dr. P. Bailey

VACCINES – PHONE YOUR REGIONAL PUBLIC HEALTH OFFICE

Press 9: Repeat Menu

Press 0: To speak with an attendant.

PAPER REQUESTS

Paper Requests:

1. Laboratory does not accept verbal test requests and requires you to fax in a request/requisition for any additional testing.

2. If patient cannot be identified, as in "circle of care" then we require a "signed release of medical information form" faxed to us at 787-9122.

REMEMBER Call 787-3131 for information from the Saskatchewan Disease Control Laboratory.

Saskatchewan Health